

IN THE CLAIMS:

The text of all pending claims (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. When strikethrough cannot easily be perceived, or when five or fewer characters are deleted, [[double brackets]] are used to show the deletion. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please retain the claims in their present form in accordance with the following:

1. (previously presented) An information retrieving system for retrieving design/manufacturing information of a variety of file formats registered in a plurality of web servers, by using an index server, said information retrieving system comprising:

a transmitting unit that transmits the abstract and storage location information of the design/manufacturing information registered in said web servers, to the index server during an idle time of the web servers;

an automatic registering unit that automatically registers the abstract and storage location information transmitted from said web servers by said transmitting unit, into said index server, wherein

said transmitting unit is a register processing agent that includes an abstract generating unit for generating an abstract from a text sentence of the design/manufacturing information and transmits the abstract and storage location information of the design/manufacturing information; and

the index server, comprising:

a registration accept processing agent to carry out a registration acceptance processing, wherein the registration accept processing agent has an overview index register that stores information relating to a registered document into a repository during an idle time;

an ontological restructuring unit to restructure a consistency of an ontology of a hierarchical structure; and

an accept signal generator to post to a web server of the plurality of web servers a fact that information has been registered into the index server.

2. (cancelled)

3. (previously presented) The information retrieving system according to claim 1, wherein said transmitting unit includes,

a storage location information generating unit that generates storage location

information showing a storage location of the design/manufacturing information; and

an information transmitting unit that transmits an abstract generated by said abstract generating unit and storage location information generated by said storage location information generating unit respectively, to said index server during an idle time of said web servers.

4. (original) The information retrieving system according to claim 3, wherein said abstract generating unit converts the design/manufacturing information into a text, and then converts this text into an XML format, thereby to generate an abstract of the text and the XML format.

5. (original) The information retrieving system according to claim 3, wherein said storage location information generating unit generates URLs as addresses of said web servers on the Internet.

6. (original) The information retrieving system according to claim 3,
wherein said information transmitting unit further includes,

a first repository that stores an abstract generated by said abstract generating unit and storage location information generated by said storage location information generating unit, and transmits the abstract and the storage location information stored in the first repository to said index server during an idle time of said web servers.

7. (previously presented) The information retrieving system according to claim 1,
wherein said automatic registering unit is a registration accept processing agent that automatically registers the abstract and the storage location information transmitted from said web servers by said transmitting unit, to said index server.

8. (original) The information retrieving system according to claim 7,
wherein said automatic registering unit includes,

a second repository that stores an abstract and storage location information of the design/manufacturing information that have been transmitted from said transmitting unit;

a storage unit that stores the abstract and the storage location information of the design/manufacturing information into the second repository during an idle time of said index server;

an ontology restructuring unit that restructures the consistency of the ontology of a hierarchical structure relating to the design/manufacturing information; and

a posting unit that posts to said web servers a message that an abstract and

storage location information of the design/manufacturing information have been stored in said second repository.

9. (original) The information retrieving system according to claim 8, wherein the abstract and the storage location information of the design/manufacturing information are transferred between said first repository and said second repository by inter-repository communications.

10. (original) The information retrieving system according to claim 1, further comprising an overview unit that has a birds-eye view of the design/manufacturing information based on an abstract and storage location information of the design/manufacturing information registered in said index server.

11. (original) The information retrieving system according to claim 1, further comprising a retrieving unit that retrieves design/manufacturing information based on an abstract and storage location information of the design/manufacturing information registered in said index server.

12. (previously presented) An information retrieving method for retrieving design/manufacturing information of a great variety of file formats registered in a plurality of web servers, by using an index server, the information retrieving method comprising:

a transmission operation of transmitting an abstract and storage location information of design/manufacturing information registered in said web servers, to the index server during an idle time of said web servers; an automatic registration operation of automatically registering the abstract and storage location information transmitted from web servers by said transmitting unit, into said index server, wherein

said transmission operation includes operations of generating an abstract from a text sentence of the design/manufacturing information by a register processing agent and transmitting the abstract and storage location information of the design/manufacturing information by a register processing agent; and

an index server operation of:

using a registration accept processing agent to carry out a registration acceptance processing, wherein the registration accept processing agent has an overview index register that stores information relating to a registered document into a repository during an idle time;

using an ontological restructuring unit to restructure a consistency of an ontology of a hierarchical structure; and

using an accept signal generator to post to a web server of the plurality of web servers a fact that information has been registered into the index server.

13. (cancelled)

14. (previously presented) The information retrieving method according to claim 12, wherein the transmission operation includes, a storage location information generation operation of generating storage location information that shows a storage location of the design/manufacturing information; and an information transmission operation of transmitting an abstract generated at the abstract generation operation and storage location information generated at the storage location information generation operation, to said index server during an idle time of said web servers.

15. (previously presented) The information retrieving method according to claim 14, wherein the abstract generation operation is for converting the design/manufacturing information into a text, and then converting this text into an XML format, thereby to generate an abstract of the text and the XML format.

16. (previously presented) The information retrieving method according to claim 14, wherein the storage location information generation operation is for generating URLs as addresses of said web servers on the Internet.

17. (previously presented) The information retrieving method according to claim 14, wherein the information transmission operation further includes, a storage operation of storing into a first repository an abstract generated at the abstract generation operation and storage location information generated at the storage location information generation operation respectively,

wherein, at the information transmission operation, the abstract and the storage location information stored in the first repository are transmitted to said index server during an idle time of said web servers.

18. (previously presented) The information retrieving method according to claim 12, wherein the automatic registration operation is an operation at which a registration accept processing agent automatically registers the abstract and the storage location information transmitted from said web servers at the transmission operation, to said index server.

19. (previously presented) The information retrieving method according to claim 18, wherein the automatic registration operation includes,

a storage operation of storing an abstract and storage location information of the design/manufacturing information into a second repository during an idle time of said index server;

an ontology restructuring operation of restructuring the consistency of the ontology of a hierarchical structure relating to the design/manufacturing information; and

a posting operation of posting to said web servers a message that an abstract and storage location information of the design/manufacturing information have been stored in the second repository.

20. (original) The information retrieving method according to claim 19, wherein the abstract and the storage location information of the design/manufacturing information are transferred between the first repository and the second repository by inter-repository communications.

21. (previously presented) The information retrieving method according to claim 12, further comprising an overview operation of having a birds-eye view of the design/manufacturing information based on an abstract and storage location information of the design/manufacturing information in said index server.

22. (previously presented) The information retrieving method according to claim 12, further comprising a retrieval operation of retrieving design/manufacturing information based on an abstract and storage location information of the design/manufacturing information registered in said index server.

23. (previously presented) An information retrieving method for retrieving design/manufacturing information of a great variety of file formats registered in a plurality of web servers, by using an index server, the information retrieving method comprising:

a transmission operation of transmitting an abstract and storage location information of design/manufacturing information registered in said web servers, to the index server during an idle time of said web servers;

an automatic registration operation of automatically registering an abstract and storage location information transmitted from web servers by said transmitting unit, into said index server, wherein

said transmission operation includes operations of generating an abstract from a text sentence of the design/manufacturing information by a register processing agent and transmitting the abstract and storage location information of the design/manufacturing information by a register processing agent, and the information retrieving method is automatically carried out when registered information is dropped onto a registration icon prepared at the registration side; and

an index server operation of:

using a registration accept processing agent to carry out a registration acceptance processing, wherein the registration accept processing agent has an overview index register that stores information relating to a registered document into a repository during an idle time;

using an ontological restructuring unit to restructure a consistency of an ontology of a hierarchical structure; and

using an accept signal generator to post to a web server of the plurality of web servers a fact that information has been registered into the index server.

24. (previously presented) An information retrieving method for retrieving design/manufacturing information of a great variety of file formats registered in a plurality of web servers, by using an index server, the information retrieving method comprising:

a transmission operation of transmitting an abstract and storage location information of design/manufacturing information registered in said web servers, to the index server during an idle time of said web servers; an automatic registration operation of automatically registering an abstract and storage location information transmitted from web servers by said transmitting unit, into said index server, wherein

said transmission operation includes operations of generating an abstract from a text sentence of the design/manufacturing information by a register processing agent and transmitting the abstract and storage location information of the design/manufacturing information by a register processing agent,

said design/manufacturing information registered is managed in a repository based on a given drawing number system, and

when there is no suitable drawing number given, a drawing number of the registered information is automatically generated from a drawing number or an abstract in a higher-order system; and

an index server operation of:

using a registration accept processing agent to carry out a registration acceptance processing, wherein the registration accept processing agent has an overview index

register that stores information relating to a registered document into a repository during an idle time;

using an ontological restructuring unit to restructure a consistency of an ontology of a hierarchical structure; and

using an accept signal generator to post to a web server of the plurality of web servers a fact that information has been registered into the index server.

25. (previously presented) The information retrieving method according to claim 24, wherein an allocation of a flow diagram and a material of an IDEF based on a work process diagram at a retrieving time can be freely selected from a menu of the drawing number system.

26. (previously presented) An information retrieving method for retrieving design/manufacturing information of a great variety of file formats registered in a plurality of web servers, by using an index server, the information retrieving method comprising:

a transmission operation of transmitting an abstract and storage location information of design/manufacturing information registered in said web servers, to the index server during an idle time of said web servers;

an automatic registration operation of automatically registering an abstract and storage location information transmitted from web servers by said transmitting unit, into said index server,

wherein said transmission operation includes operations of generating an abstract from a text sentence of the design/manufacturing information by a register processing agent and transmitting the abstract storage location information of the design/manufacturing information by a register processing agent, and

CAD design/manufacturing information, which includes at least one of a structure diagram of an ICAD-MX or a circuit diagram of the ICAD-MX is converted into text information, thereby to automatically generate an abstract; and

an index server operation of:

using a registration accept processing agent to carry out a registration acceptance processing, wherein the registration accept processing agent has an overview index register that stores information relating to a registered document into a repository during an idle time;

using an ontological restructuring unit to restructure a consistency of an ontology of a hierarchical structure; and

using an accept signal generator to post to a web server of the plurality of web servers a fact that information has been registered into the index server.

27. (previously presented) A computer-readable recording medium recorded with a program for retrieving design/manufacturing information of a great variety of file formats registered in a plurality of web servers, by using an index server, the recording medium being recorded with a program comprising:

a transmission operation of transmitting an abstract and storage location information of design/manufacturing information registered in said web servers, to the index server during an idle time of said web servers; and

an automatic registration operation of automatically registering an abstract and storage location information transmitted from web servers by said transmitting unit, into said index server, wherein

said transmission operation includes operations of generating an abstract from a text sentence of the design/manufacturing information by a register processing agent and transmitting the abstract and storage location information of the design/manufacturing by a register processing agent; and

an index server operation of:

using a registration accept processing agent to carry out a registration acceptance processing, wherein the registration accept processing agent has an overview index register that stores information relating to a registered document into a repository during an idle time;

using an ontological restructuring unit to restructure a consistency of an ontology of a hierarchical structure; and

using an accept signal generator to post to a web server of the plurality of web servers a fact that information has been registered into the index server.